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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,566	03/27/2007	Benjamin B. Yellen	46528-5091-00-US (428101)	6514
10872	7590	05/23/2011	EXAMINER	
Riverside Law LLP		300 Four Falls Corporate Center, Suite 710	JANCA, ANDREW JOSEPH	
300 Conshohocken State Road		300 Conshohocken State Road	ART UNIT	PAPER NUMBER
West Conshohocken, PA 19428			1774	
			NOTIFICATION DATE	DELIVERY MODE
			05/23/2011	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

dockets@riversidelaw.com  
dcoccia@riversidelaw.com  
dpratcher@riversidelaw.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/586,566	YELLEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Andrew Janca	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 March 2011.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 and 10-18 is/are pending in the application.
- 4a) Of the above claim(s) 15-17 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8,10-14,18 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ .   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-8 and 10-14 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8, 10-14, and 18 are rejected under 35 USC 102(b) as anticipated by US 2002/0166760 A1 by Prentiss et al.
4. With regard to claim 1, Prentiss disclose a device which may be used for manipulating non-magnetic particles dispersed inside a fluid comprising: a) a fluid holding chamber, one of (52 [figures 1-3, 7, paras 38-63 and 85-91], 120 [figures 9, 10; paras 64-77]) comprising an inner and outer surface; b) a fluid in contact with the inner surface of the fluid holding chamber, said fluid containing a dispersion of magnetic particles, one of (50, 140), and which may contain a dispersion of non-magnetic particles if desired (for example paras 104-108); as the non-magnetic particles are not part of the apparatus but the contents intended to be worked upon by the apparatus, this limitation is one of intended use; and c) at least two sources of magnetic fields, one

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of (the wires 18 or 46 of figures 1-3, 7 and paras 38-63 and 85-91, the magnetic features 160 and the external magnets or electromagnets of figures 9, 10 and paras 64-77) positioned in close proximity to, or inside of, the fluid holding chamber which produce a changeable pattern of magnetic field minima and maxima regions thereby causing the non-magnetic particles in the fluid to be transported towards the magnetic field minima regions by magnetic force, wherein one of said sources of magnetic fields comprises an array of magnetizable features (18/46, 160) on a micrometer or nanometer length scale (figures 1-3, 7-10; paras 37ff). Regarding the intended contents of the apparatus, it has been held that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim.” See *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969).

5. With regard to claim 2, Prentiss disclose the device of claim 1 further comprising an array of different molecules attached to the inner surface of the fluid holding chamber (para 79).

6. With regard to claim 3, Prentiss disclose the device of claim 1 further comprising an array of different nanoparticles or microparticles attached to the inner surface of the fluid holding chamber (para 79).

7. With regard to claim 4, Prentiss disclose the device of claim 1 further comprising a sensor attached to the inner surface of the fluid holding chamber (para 79).

8. With regard to claim 5, Prentiss disclose the device of claim 4 wherein the sensor is selected from the group consisting of optical, electrical, electrochemical, and magnetic sensors (para 79).

9. With regard to claim 6, Prentiss disclose the device of claim 1 wherein the magnetic particles dispersed in the fluid comprise magnetic nanoparticles, paramagnetic ions, or molecular magnets (paras 56-57).
10. With regard to claim 7, Prentiss disclose the device of claim 6 wherein the magnetic nanoparticles comprise iron, iron-oxide, iron-platinum, cobalt, nickel, a rare-earth metal or another alloy forming ferromagnetic, or a ferrimagnetic or superparamagnetic material, or any combination thereof (para 56).
11. With regard to claim 8, Prentiss disclose the device of claim 6 wherein the magnetic nanoparticles have a surface covered by molecules which provide steric or ionic hinderance in order to prevent irreversible aggregation of the magnetic nanoparticles in the fluid (paras 56-58, 81).
12. With regard to claim 10, Prentiss disclose the device of claim 1 wherein the magnetizable features are patterned on top of the inner surface of the fluid holding chamber (figures 1, 12).
13. With regard to claim 11, Prentiss disclose the device of claim 1 wherein the magnetizable features are embedded inside of the inner surface of the fluid holding chamber (para 66).
14. With regard to claim 12, Prentiss disclose the device of claim 1 wherein the magnetizable features 18a-18b are attached to mobile supports 14 that can be submerged in the fluid. Prentiss discloses that the substrate chip may be under the fluid rather than held over it (paras 60, 87), and that the substrate chip 14 may be as small as 1 mm<sup>2</sup> (para 61). The support may be submerged in the fluid, if desired. It has been

held that the manner of operating an apparatus does not differentiate an apparatus claim from the prior art, if the prior art apparatus teaches all of the structural limitations of the claim. See *Ex Parte Masham*, 2 USPQ2d 1647 (BPAI 1987).

15. With regard to claim 13, Prentiss disclose the device of claim 1 wherein the patterns of the magnetizable field sources may be changed by applying an additional time-varying source of substantially uniform magnetic field (paras 49, 52, 58-71).

16. With regard to claim 14, Prentiss disclose the device of claim 1 wherein the sources of magnetic fields comprise an array of conductors and a means for switching or varying electrical current in said conductors (figures 1-4b; paras 38-54).

17. With regard to claim 18, Prentiss disclose a device which may be used for manipulating non-magnetic particles dispersed inside a fluid comprising: a) a fluid holding chamber, one of (52 [figures 1-3, 7, paras 38-63 and 85-91], 120 [figures 9, 10; paras 64-77]) comprising an inner and outer surface; b) a fluid in contact with the inner surface of the fluid holding chamber, said fluid containing a dispersion of magnetic particles, one of (50, 140), and which may contain a dispersion of non-magnetic particles if desired (for example paras 104-108): as the non-magnetic particles are not part of the apparatus but the contents intended to be worked upon by the apparatus, this limitation is one of intended use; and c) at least two sources of magnetic fields, one of (the wires 18a-18b or 46 of figures 1-3, 7 and paras 38-63 and 85-91, the magnetic features 160 and the external magnets or electromagnets of figures 9, 10 and paras 64-77) positioned in close proximity to the fluid holding chamber which produce a changeable pattern of magnetic field minima and maxima regions thereby causing the

non-magnetic particles in the fluid to be transported towards the magnetic field minima regions by magnetic force, wherein at least one of said sources of magnetic fields (18, 160) is positioned inside the fluid holding chamber (figures 1-3, 7-10; paras 37ff).

Regarding the intended contents of the apparatus, it has been held that “[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim.” See *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969).

### ***Conclusion***

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **this action is made final**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Janca whose telephone number is (571) 270-5550. The examiner can normally be reached on M-Th 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on (571) 272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJJ

/DAVID L. SORKIN/  
Primary Examiner, Art Unit 1774